

Notice of Allowability

Application No.

09/879,226

Examiner

Dac V. Ha

Applicant(s)

RICHARDS ET AL.

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 12/06/04.
2. ☒ The allowed claim(s) is/are 1-35, 37 and 38.
3. ☒ The drawings filed on 06 December 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Dac V. Ha
Primary Examiner
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Allowable Subject Matter

1. This office action is in response to the amendment filed on 12/06/04.
2. Claims 1-35, 37-38 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter:

Applicants have cancelled claim 36 in accordance with the office action dated 09/21/04. The present invention relates to impulse radio system. Prior art of record, upon further consideration, fails to fairly teaches method and apparatus for improving signals quality in an impulse radio system, as claimed, including "transmitting a pulse train signal having pulses positioned in time in accordance with code elements of a first code; receiving the pulse train signal in accordance with code elements of a second code, wherein the code elements of the second code comprise the code elements of the first code and additional code elements" in independent claim 31 (claims 32-34 depend therefrom); "producing a first code having a plurality of code elements that specify a position in time of a plurality of pulses in accordance with a layout; and producing a second code having at least one additional code element from said first code wherein the at least one additional code element specifies an interference sample time in accordance with the layout" in independent claim 35; "transmitting a pulse train signal having pulses positioned in time in accordance with code elements of a first code; receiving a subset of the pulse train signal in accordance with code elements of a second code, wherein the code elements of the second code comprise a subset of the code elements of the first code" in independent claim 37; "transmitting a pulse train

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signal having pulses positioned in time in accordance with code elements of a first code; receiving the pulse train signal in accordance with code elements of the first code; measuring interference samples at times specified by code elements of a second code to remove interference from the received pulse train” in independent claim 38 and “recovering a received pulse train signal in accordance with the arrival time of the at least one pulse; measuring one or more interference samples at one or more interference sample times that do not coincide with an arrival time; modifying the received pulse train signal in accordance with a measured interference sample; and varying at least one of said one or more interference sample times until one or more received signal quality measures satisfy a predefined signal quality criterion” in independent claim 1 (claims 2-30 depend therefrom). Thus, claims 1-35, 37-38 are found to be novel and unobvious over prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a long horizontal flourish extending to the right.

Dac V. Ha
Primary Examiner
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